

Applicants: Fritz HÖSEL et al.  
Appl. No. 10/602,046

**AMENDMENTS TO THE DRAWINGS**

Please replace the formal drawing sheet 1 of 17, submitted on September 19, 2003 and containing Fig. 1, with the enclosed replacement drawing sheet 1 of 17, containing amended Fig. 1.

Please replace the formal drawing sheet 2 of 17, submitted on September 19, 2003 and containing Fig. 2, with the enclosed replacement drawing sheet 2 of 17, containing amended Fig. 2.

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**REMARKS**

Applicants thank the Examiner for the careful consideration of this application. Claims 1-4, and 8-27 are currently pending. Claims 1, 3, 4, 8, 9, 10, 14, 24, and 27 have been amended. Claims 5-7 have been cancelled. Based on the foregoing amendments and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

**Objections to the Drawings**

The Examiner stated in the Office Action that Figure 1 should be labeled as -- Prior Art -- because only that which is old is illustrated. By this Amendment, Figure 1 has been amended to include the label of -- Prior Art --.

The Examiner objected to the drawings under 37 C.F.R. 1.83(a) for failing to show "the 'imaging devices [] offset from one another in the working direction' of claim 4." Figure 2 has been amended to illustrate a camera 15x that is offset with respect to a camera 15a in the working direction A, and accompanying description has been added to the specification in the paragraph beginning on line 6 of page 16. The amendments to Figure 2 and the specification are supported, at least, by the original specification at page 5, lines 25-27 and by original claim 4. Accordingly, no new matter has been added.

**Objections to the Specification**

The Examiner objected to the Abstract because it is not a single paragraph. By this Amendment, the Abstract has been amended to correct this informality.

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### Claim Objections

The Examiner objected to claims 6, 10, 14, and 27 for various informalities. By this Amendment, claims 10, 14, and 27 have been amended to correct these informalities.

Claim 6 has been cancelled and the subject matter thereof has been incorporated into claim 1. In the Office Action, the Examiner indicated that claim 6 was indefinite because it was unclear whether both the objective and the sensor elements are needed. Claim 1, as amended, makes it clear that both elements are needed.

### Rejections under 35 U.S.C. § 112

Claim 24 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner asserted that it was unclear what an “opener and cleaner” is. Claim 24 has been amended to clarify that the claimed machine is “an automatic bale opener and cleaner machine.” Therefore, Applicants respectfully request that this rejection be withdrawn.

### Rejections under 35 U.S.C. § 102

Claims 1-3 and 5-9 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,130,559 to Leifeld et al. Applicants respectfully traverse this rejection.

Claim 1 recites that “the opto-electronic system compris[es] two or more camera modules which are displaced from one another across the working width of the fibre material and which are in communication with a common image-evaluation device.” Leifeld does not disclose or suggest two or more camera modules which are displaced from one another across the working width of the fibre material. However, the Examiner stated that “[i]t is inherent within [Leifeld]

that the plurality of cameras connected to image processing device 16 would be mounted on traverse head 11c displaced along the working width of the textile fiber material.” Applicants respectfully disagree.

Although Leifeld discloses that “a plurality of cameras 12 may be connected with the image processing device 16,” the reference does *not* disclose that they are displaced from one another across the working width of the fibre material, as claimed, and it is not inherent in Leifeld that the cameras are displaced from one another across the working width of the fibre material. To establish a case of inherent anticipation, the claim element *must have* existed or occurred *to a certainty* (i.e., not just a possibility or probability). *See Scaltech, Inc. v. Retec/Tetra, LLC*, 178 F. 3d 1378, 1384 (Fed. Circ. 1999)(emphasis added). There is nothing in Leifeld that indicates to a certainty that the “plurality of cameras 12” must have been displaced from one another across the working width of the fibre material. In fact, Leifeld is completely silent about how the plurality of cameras 12 would be arranged, or whether the plurality of cameras are even located on the same machine. Accordingly, Leifeld does not anticipate claim 1 by inherency. Furthermore, Leifeld does not provide any motivation to displace the cameras from one another across the working width of the fibre material, because Leifeld is not concerned with reducing the overall height of the camera modules, as is the present invention. Accordingly, the Applicants respectfully submit that claim 1 is patentable over Leifeld. In addition, Leifeld does not disclose or suggest “two or more partial camera modules” with “each partial camera module consisting essentially of an objective in combination with a sensor, wherein further

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camera components are located remotely from said partial camera modules,” as recited by claim 1 and discussed below in connection with U.S. Patent No. 5,533,145 to Shofner et al.

Dependent claims 2-3 and 8-9 depend from claim 1 and are allowable for the same reasons, as well as for reciting additional features. With respect to the Examiner’s statements about some of the dependent claims being inherently anticipated by Leifeld, the Applicants respectfully disagree, and request that the Examiner bring forth evidence establishing the anticipation by inherency.

In view of the above, the Applicants submit that independent claim 1, and its dependent claims, are allowable over Leifeld. Withdrawal of this rejection is respectfully requested.

Claims 1-3 and 5-12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,533,145 to Shofner et al. Applicants respectfully traverse this rejection.

Claim 1, as amended, recites that

the opto-electronic system compris[es] two or more partial camera modules which are displaced from one another across the working width of the fibre material and which are in communication with a common image-evaluation device, each partial camera module consisting essentially of an objective in combination with a sensor, wherein further camera components are located remotely from said partial camera modules.

Shofner does not disclose or suggest “two or more *partial* camera modules” with “each partial camera module consisting essentially of an objective in combination with a sensor, wherein further camera components are located remotely from said partial camera modules,” as claimed. Rather, the optical imaging units 130, 132 of Shofner are *complete* cameras including a

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CCD camera, multiple lenses, a mirror 160, and a spatial mask 156. (*See* Shofner, col. 7, lines 34-37; col. 8, lines 29-35.) In addition, Shofner does not disclose or suggest that parts of the optical imaging units are located remotely therefrom. Accordingly, Shofner does not anticipate claim 1. Furthermore, Shofner does not provide any motivation to replace complete imaging units 130, 132 with *partial* units, as claimed, because Shofner is not concerned with reducing the space occupied by the optical imaging units, as is the present invention. For the above reasons, Applicants submit that claim 1, and its dependent claims, are allowable over Shofner.

With respect to dependent claim 8, the Examiner stated that “[i]t is inherent [in Shofner] that the camera module will comprise a power supply in order to power the camera.” However, claim 8, which depends from claim 1, recites that the “further camera components [such as power supply] are located remotely from said partial camera modules.” Applicants respectfully submit that it is not inherent in Shofner that the imaging units 130, 132 comprise remotely-located power supplies.

Applicants respectfully request withdrawal of the rejection of claim 1, and its dependent claims, over Shofner.

Rejections under 35 U.S.C. § 103

Claims 4 and 13-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Leifeld.

Claims 4, 13, and 15-26 depend from claim 1, which, as demonstrated above, is allowable over Leifeld. Accordingly, claims 4, 13, and 15-26 are allowable for the same reasons, as well as

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for reciting additional features. In addition, the Applicants respectfully disagree with the numerous occasions where the Examiner has taken “Official Notice” that these claims are inherently anticipated or rendered obvious. Applicants demand evidence that these claims are inherently anticipated or rendered obvious. It is the Applicants’ position that the Examiner has completely failed to establish a *prima facie* case of obviousness of these claims.

Independent claim 14, as amended, recites that:

two or more cameras are provided side by side across the width of the fibre material, wherein the cameras are located in an area limiting the distance between the cameras and the fibre material, and the number of cameras increases as the distance between the cameras and the textile fibre material decreases.

As discussed above with respect to claim 1, Leifeld does not disclose (expressly or inherently), or suggest, “two or more cameras [] provided side by side across the width of the fibre material,” as claimed. Furthermore, Leifeld does not disclose or suggest that “the cameras are located in an area limiting the distance between the cameras and the fibre material, and the number of cameras increases as the distance between the cameras and the textile fibre material decreases.”

In the Office Action, the Examiner stated, taking Official Notice, that:

It is obvious to one of ordinary skill in the art that as the distance between the fiber material and the camera(s) decreases, the number of cameras must increase because as the said distance decreases, the field of view of each camera on the fiber material decreases, and one of ordinary skill in the art at the time of the claimed invention would know that in order to compensate for the lost field of view, more cameras would have to be added to the image capture system.

Applicants respectfully disagree with the Examiner's position that claim 14 is obvious, and demand that the Examiner provide evidence substantiating the position. Leifeld simply does not recognize the problem of the "cameras [being] located in area limiting the distance between the cameras and the fibre material," as does the claimed invention. Rather, as shown in Figure 1, there is nothing restricting the distance of camera 12 from the fibre web 25. As a result, Leifeld does *not* provide any motivation or suggestion to increase the number of cameras as the distance between the cameras and the textile fibre material decreases. Rather, Applicants respectfully submit that the Examiner's finding of obviousness is based on improper hindsight reasoning. Thus, the Applicants submit that claim 14 is allowable over Leifeld.

Independent claim 27, as amended, recites that "moving opto-electronic sensors scan the stationary fibre material." The Examiner acknowledged in the Office Action that Leifeld does not disclose that the sensors move. Rather, the Examiner took Official Notice that:

It would have been obvious to one having ordinary skill in the art . . . to keep the sample stage stationary and to move the camera in place of the stage, since it has been held that a mere reversal of the essential working elements of a device involves only routine skill in the art.

The Applicants respectfully disagree and demand that the Examiner bring forth evidence substantiating this assertion. Leifeld simply does not provide any motivation or suggestion to modify the device as proposed by the Examiner. Such a modification would require a complete re-configuration of the disclosed device.

Furthermore, as discussed above with respect to claim 1, Leifeld does not disclose or

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suggest “three or more opto-electronic sensors [] provided side by side across the width of the fibre material,” as recited by claim 27. Nor does Leifeld recognize the problem of the “opto-electronic sensors [being] located in area limiting the distance between the opto-electronic sensors and the fibre material,” as does the claimed invention. Rather, as shown in Figure 1, there is nothing restricting the distance of camera 12 from the fibre web 25. As a result, Leifeld does *not* provide any motivation or suggestion to increase the number of opto-electronic sensors as the distance between the opto-electronic sensors and the textile fibre material decreases. For the above reasons, the Applicants respectfully submit that claim 27 is allowable over Leifeld.

### Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants, therefore, respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is hereby invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

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Respectfully submitted,

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Steve Schwarz  
Steven J. Schwarz  
Registration No. 47,070  
VENABLE LLP  
P.O. Box 34385  
Washington, DC 20043-9998  
Telephone: (202) 344-4000  
Direct Dial: (202) 344-4295  
Telefax: (202) 344-8300

DC2DOCS1\675714